

Remarks

Claims 1, 23, and 42-49 are pending in the application. The Applicants gratefully acknowledge the allowance of claims 42-44. Claims 1 and 23 have been amended. Support for the claim amendments can be found throughout the application, including the claims as originally filed. Therefore, no new matter has been added. Importantly, the claim amendments should not be construed to be an acquiescence to any of the claim rejections. Rather, the amendments and cancellations are being made solely to claim more clearly the invention and to expedite the prosecution of the instant application. The Applicants expressly reserve the right to further prosecute the same or similar claims in subsequent patent applications claiming the benefit of priority to the instant application. 35 U.S.C. § 120. Favorable reconsideration is respectfully requested in view of the foregoing amendments and following remarks.

Rejections Based on 35 U.S.C. § 102(b)

Claims 1 and 45-49 are rejected under 35 U.S.C. § 102(b) as being anticipated by Schmid *et al.* (*Tetrahedron Letters*, 1996, 37, 3837, “Schmid”). The Examiner contends that Schmid discloses glucose 1-phosphate compounds (page 3838, Scheme 1, compounds 2 and 3) that are encompassed by the claims of the instant invention. The Applicants respectfully disagree.

In order to expedite prosecution, the Applicants have amended claim 1 to remove “alkyl” from the Markush group defining “R.” The Applicants respectfully assert that amended claim 1 is not anticipated by Schmid.

Moreover, the Applicants respectfully assert that pending claim 45, as previously presented, defines “R” to be “aryl.” As such, claim 45 reads on compound 3 of the Schmid reference *if and only if* the definition of “R₇” in structure limitation 2 encompasses “aralkyl.” The Applicants respectfully point out that in claim 45 “R₇” is defined as “selected, independently for each occurrence, from the group consisting of H, alkyl, heteroalkyl, aryl, heteroaryl, heteroaralkyl, and sulfonyl”; notably, this definition does not include “aralkyl.” As such, the Applicants respectfully submit that neither of the compounds disclosed in the Schmid reference fall within the scope of rejected claim 45.

The Applicants respectfully remind the Examiner that in order to anticipate a claim, a single source must contain all of the elements of the claim. *See Hybritech Inc. v. Monoclonal*

Antibodies, Inc., 802 F.2d 1367, 1379, 231 U.S.P.Q. 81, 90 (Fed. Cir. 1986); *Atlas Powder Co. v. E.I. duPont De Nemours & Co.*, 750 F.2d 1569, 1574, 224 U.S.P.Q. 409, 411 (Fed. Cir. 1984); *In re Marshall*, 578 F.2d 301, 304, 198 U.S.P.Q. 344, 346 (C.C.P.A. 1978). Missing elements may not be supplied by the knowledge of one skilled in the art or the disclosure of another reference. *See Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 716, 223 U.S.P.Q. 1264, 1271 (Fed. Cir. 1984). The Applicants contend that dependent claims 46-49 are not anticipated by Schmid because they depend from independent claims 1 and 45, which do not read on any compounds disclosed in Schmid.

Accordingly, the Applicants respectfully request the withdrawal of the claim rejections under 35 U.S.C. § 102(b) based upon the Schmid reference.

Claim Objections

The Examiner objected to claim 23 as being dependent upon a rejected base claim, but stated that the claim would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Accordingly, claim 23 has been rewritten in independent form; and to include the definition of R' from claim 1. Claim 23 has also been amended to include a definition of R that is narrower than the definition of R from claim 1 prior to the amendment made in this Response. Specifically, the definition of R added to claim 23 lacks the Markush element "alkyl" previously present in claim 1, which has been replaced with "methyl, propyl, butyl, pentyl, hexyl". Support for this replacement can be found in the Definitions section where "alkyl" and "lower alkyl" are defined at page 31, lines 24-30 and page 32, lines 23-27, respectively.

The Applicants point out that the compounds of amended claim 23 possess an equatorial (beta) configuration at the anomeric carbon. The beta configuration is an uncommon structural feature of the compounds of the invention, as it is well known that "pyranose sugars substituted with electron-withdrawing groups such as halogen or alkoxy at C-1 are often more stable when the substituent has an axial [alpha] orientation ... this phenomenon is known as the *anomeric effect*." *See Carey and Sundberg, Advanced Organic Chemistry, Part A*, 147 (Plenum Press, 1990).

Accordingly, the Applicants respectfully request the withdrawal of the claim objection.

Fees

The Applicants believe there are no required fees in connection with the filing of this paper. Nevertheless, the Director is hereby authorized to charge any required fee to our Deposit Account, **06-1448**, reference **MTV-018.02**.

Conclusion

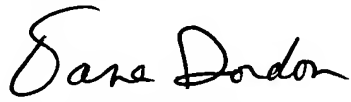
In view of the above amendments and remarks, the Applicants believe that the pending claims are in condition for allowance. If a telephone conversation with Applicants' Attorney would expedite prosecution of the application, the Examiner is urged to contact the undersigned.

Respectfully submitted,
Patent Group
Foley Hoag LLP

Foley Hoag LLP
155 Seaport Boulevard
Boston, MA 02210

Telephone: (617) 832-1000
Telecopier: (617) 832-7000

Date: September 6, 2006

By: 
Dana M. Gordon, Ph.D.
Reg. No. 44,719
Attorney for Applicants